Cloud Computing: Its Influence on Career Paths of Business Education Postgraduate Students (OTM Option) in Selected Public Universities, South West, Nigeria

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Abstract

The study investigated the influence of cloud computing on career paths of OTM postgraduate students. It was guided by three objectives and two research questions. A descriptive survey design was used. The population was 167 comprised of Business Education Postgraduate students in Lagos State University (LASU), Olabisi Onabanjo University (OOU) and Tai Solarin University of Education (TASUED). The population size was adopted using a total sampling method. The data were sourced primarily with the use of validated questionnaire that was subjected to a Cronbach Alpha's reliability test and it produced 0.703 and 0.811 for both variables. Out of 167 expected responses, the researchers successfully obtained 97. The obtained data were analysed using both descriptive statistics for the research questions and inferential statistics for the null hypothesis. The multiple regression analysis was used to test the hypothesis at 0.05 level of significance. The result [R^2 = 0.396; Adj. R^2=0.390; F= 28.913] revealed that cloud security, data-based management, cloud architecture, cloud analytics and cloud platforms were among the required competencies for OTM postgraduates for career paths in cloud computing. In conclusion, OTM postgraduates' expertise in cloud computing would have more employment options if it increases or improves. However, some factors were identified for undermining OTM postgraduate students in acquiring the cloud computing skills and they were lack of experience, data privacy, data lock-in, insider threats, account hijacking, misconfiguration, cloud cost management, cyberattack, network dependency, and data loss.It was recommended among others that OTM postgraduates should be constantly retrained through in-service training, workshops, seminars and conferences to enable them up-date their cloud computing competencies for effective records management.

Keywords: Career Paths, Cloud Computing, Office Technology and Management, Business Education

Word Count: 261

Introduction

Nowadays, some students in tertiary institutions are begin to settle down for Office Technology and Management (OTM) as discipline. Modern equipment is being used to bring innovation to office duties as a result of the introduction of new technology into many organisations' office environments (Ivaldi et. al., 2022; Roblek et. al., 2021; Adenekan & Jimoh, 2021).

Organisations in Nigeria are incorporating new technology into their operations, particularly in records management, to make office workers' jobs simpler and more efficient. Records are resources that an organisation creates, stores, retrieves, and discards. office as information or documents created by a person working for a company and maintained in compliance with legal obligations (Ifenaike & Olatokun, 2021; Abiola & Ugwoke, 2021). Physical items (certificates and official papers), digital information (email), or original or preserved copies of registers and reports are all examples of records (Thompson et. al., 2024; Clemence et. al., 2023). To prevent major legal, operational, and public relations risks, these documents must be handled appropriately. The preservation of an organisation's records from their creation to their disposal is the main goal of records management. Office management is the deliberate handling of an organisation's records during the course of its existence. Office management can be done electronically or conventionally. Many big physical copies of documents are kept in file cabinets as part of traditional records management. This system is no longer effective due to enormous volume ofrecords being created every day as a result of increased organisations' activities. In the light of thisdeficiency, Bello (2021) observed that many Nigerian organisations are increasingly adoptingelectronic records management systems which include records stored on storage media, in-house, or in the cloud (Emily & Ile, 2023). These electronic records require a range of competencies to manage effectively.

Cloud computing is a form of computing resources that facilitates sharing of data or information over the internet, rather than having them on local servers or personal devices (Uzuagu et. al., 2020).The capacity to access a network of computer resources that are owned and managed by a third party via an internet connection is known as cloud computing. Higher education institutions are increasingly using cloud computing services (Emily & Ile, 2023). Without having to make an investment in their own IT infrastructure, polytechnics may subscribe to and use cloud services on demand at a reasonable cost via an internet connection. Because it enables institutions to handle vast volumes of data on costly, outdated, energy-inefficient, on-premise systems, cloud computing is the solution to contemporary record keeping in higher institutions. The adoption of cloud computing in records management can allow polytechnics to manage, secure, and provide access to digital documents.

Public institutions should start transitioning to cloud computing in order to reap the benefits it offers. Utilizing cloud computing for records management is very difficult, and records

managers need specialized skills to do it. Competencies in cloud computing include the ability to designate data for deletion in the cloud, save data using Dropbox and Google Drive, and generate and save data using Google Docs. Other skills include the capacity to collaborate on various document kinds, transfer files and data, share a screen, interact with distant internet services, be knowledgeable about digital archives, and comprehend the key words and ideas of cloud computing (Uzuagu et. al., 2020). Records stored on cloud are secured and can be easily retrieved when needed.

Office Technology and Management (OTM) is an academic programme that was created to replace the previous secretarial studies/programme in Nigerian tertiary institutions, particularly polytechnics. The new OTM programme was created to fill competency gaps in the old secretarial studies curriculum that prevented graduates from functioning effectively in contemporary workplaces. The programme is ICT-based and is designed to train students in in-depth knowledge of records management information systems. Employers expect OTM graduates to evolve in tandem with changes in electronic management competencies. Silas-Dikibo (2021)noted that employers in Nigeria are concerned about the type of skills OTM graduates are exposed to while in school given the high unemployment rate among them. OTM graduates are unemployed due to their lack of employable skills (Ukata& Edeh, 2021). There is a large number of polytechnics in Nigeria with the aim of training students in skills. This means that in terms of employment chances, polytechnic OTM graduates should be at a competitive edge over their colleagues from other tertiary institutions. In Nigerian polytechnics, this scenario might also be of concern to administrators and administrative supervisors. Senior employees or higher officers who direct, manage and oversee the activities of younger staff members in order to fulfill organisational objectives are referred to as administrative supervisors. These expertise and roles make administrative supervisors qualified to evaluate electronic records management competencies required of polytechnic OTM graduates.

The term "cloud computing" essentially describes cloud-based services that include compute, software, data access, and storage. The current OTM programme has incorporated courses that emphasize records management and information systems in its curriculum in order to equip students with competences in records management. Every OTM graduate is consequently expected to possess necessary competencies for efficient records management. Graduates of OTM would probably be unqualified for management and other administrative jobs in

contemporary organisations if they have notacquired the necessary electronic records administration competencies. The researcher's observationsshow that some OTM graduates from polytechnics face prejudice in the labour market when applyingfor administrative positions, and some of those who succeed in finding work fall short of expectationsof their employers. Employers of labour are also voicing discontent regarding the caliber of OTMgraduates, who they claim struggle to maintain data efficiently utilizing the electronic managementsystem. This situation can be caused by a discrepancy between the records management competenciesthe OTM graduates were exposed to and the competencies the organisations want from OTMgraduates in the digital age. Hence, this study was an attempt to examine cloud computing and its impact on career paths for office technology and management (OTM) graduates: Exploring emerging opportunities.

Aim and Objectives of the Study

The aim of this study was to investigate the influence of cloud computing on career paths of office technology and management (OTM) postgraduates in public universities, south-West, Nigeria. The objectives were to:

1. identify the career paths of OTM postgraduate students in public universities, South-West, Nigeria,
2. ascertain the level of cloud computing skills ofOTM postgraduate students in public universities, South-West, Nigeria,
3. establish the influence of cloud computing on career paths of OTM postgraduate students in public universities, South-West, Nigeria.

Research Questions

The following research questions guided the study:

1. What are the career paths of OTM postgraduate students in public universities, South-West, Nigeria?
2. What is the level of cloud computing skills of OTM postgraduate students in public universities, South-West, Nigeria?

Hypothesis

The below null hypothesis was tested at the 0.05 level of significance:

$H_0$2: There is no significant influence of cloud computing on career paths of OTM postgraduate students in public universities, South-West, Nigeria.

Theoretical Framework

Technology Acceptance Model (TAM)

The Technology Acceptance Model (TAM), created by Fred Davis in 1989, served as the foundation for this investigation as well. The technology acceptance model (TAM), as defined by Ezurike (2023), is a theory of information base systems that simulates how people really adopt and use a technology as a result of its perceived utility. describing how the TAM is relevant to the uptake of technologies. Consumer intention to embrace technological items, including cloud technologies, is influenced by a number of important aspects, including perceived utility and simplicity of use. Perceived usefulness is the utility values that a certain technology offers, while perceived ease of use is the extent to which a person feels that using a technology would be effortless (Ezurike, 2023). The Technology Acceptance Model was chosen because it clarifies and emphasizes how cloud computing affects office technology and management (OTM) graduates' employment options.

Methodology

A descriptive survey design was used. The population was 167 comprised of Business Education Postgraduate students in Lagos State University (LASU), Olabisi Onabanjo University (OOU) and Tai Solarin University of Education (TASUED). The population size was adopted using a total sampling method. The data were sourced primarily with the use of validated questionnaire that was subjected to a Cronbach Alpha's reliability test and it produced 0.703 and 0.811 for both variables. Out of 167 expected responses, the researchers successfully obtained 97. The obtained data were analysed using both descriptive statistics for the research questions and inferential statistics for the null hypothesis. The multiple regression analysis was used to test the hypothesis at 0.05 level of significance.

Results and Discussion of Findings

Research Question 1: What are the career paths of OTM postgraduate students in public universities, South-West, Nigeria?

Table 2: The Career Paths of OTM Postgraduate Students

Items	Mean	SD	Remarks
Office Administration	3.87	.542	Accepted

Records Management	3.98	.695	Accepted
Digital Office Management	3.67	.422	Accepted
Corporate Communication	3.66	.533	Accepted
Virtual Assistance	3.45	.679	Accepted
Data Entry and Analysis	3.27	.544	Accepted
Business Correspondence	3.16	.432	Accepted
Customer Relationship Management	3.34	.638	Accepted
Secretarial Duties	3.81	.301	Accepted
Human Resource Management	3.22	.465	Accepted
Cluster Mean	**3.54**		Accepted

Source: Field Survey, 2025

Table 2 demonstrates that all career paths proposed for OTM postgraduate students at public universities in South-West Nigeria were accepted. Business Correspondence had the lowest mean (M = 3.16, SD =.432), whereas Records Management had the highest (M = 3.98, SD =.695). Office administration (M = 3.87), secretarial work (M = 3.81), and corporate communication (M = 3.66) were other prominent career choices. Given the various uses of office technology and management in modern workplaces, the results show that OTM postgraduate students view a broad range of job opportunities as crucial to their professional growth.

Research Question 2: What is the level of cloud computing skills of OTM postgraduate students in public universities, South-West, Nigeria?

Table 2: Level of Cloud Computing Skills of OTM Postgraduate Students

Items	**Mean**	**SD**	**Remarks**
Programming	1.10	.478	Rejected
Cloud security	2.51	.621	Accepted
Linux	1.23	.692	Rejected
Machine learning	1.87	.585	Rejected
Mitigating data	2.03	.684	Rejected
Networking	2.31	.399	Rejected
Data based management	3.09	.432	Accepted
Cloud architecture	1.17	.683	Rejected
Cloud analytics	1.26	.301	Rejected
Cloud platforms	2.19	.484	Rejected
Cluster Mean	**1.87**		Rejected

Source: Field Survey, 2025

The cluster mean of 1.87 in Table 2 indicates that OTM postgraduate students in public universities in South-West Nigeria have a poor overall level of cloud computing competencies, which results in a rejection. The majority of specialised abilities, such as cloud architecture (M = 1.17), machine learning (M = 1.87), Linux (M = 1.23), and programming (M = 1.10), were

similarly disregarded, indicating a lack of competence in these fields. Nonetheless, acceptance of Cloud Security (M = 2.51) and Data-Based Management (M = 3.09) demonstrated a moderate level of proficiency in these areas. These results show that to equip OTM postgraduate students with the necessary cloud computing capabilities for contemporary office settings, further training and capacity-building initiatives are required.

Hypothesis Testing: There is no significant influence of cloud computing on career paths of OTM postgraduate students in public universities, South-West, Nigeria.

Table 5: Model Summary[a]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.629	0.396	0.390	0.191

a. Predictors: (Constant),*Cloud Computing*

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	18.3755	1	18.38	28.913	.000[b]
	Residual	61.013	96	0.636		
	Total	79.388	97			

a. Dependent Variable: *Career Paths*

b. Predictors: (Constant), *Cloud Computing*

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	30.5065	12.131		2.515	0.01
	Cloud Computing	0.636	0.374	0.262	1.701	0.00

a. Dependent Variable: *Career Paths*

The findings of the hypothesis test show that cloud computing has a major impact on the career path of postgraduate OTM students at public universities in South-West Nigeria. According to the model summary, cloud computing accounts for 39.6% of the variation in career paths, with a correlation coefficient (R) of 0.629 and an R-square value of 0.396. The ANOVA results support the model's significance (F = 28.913, p = 0.000), indicating that cloud computing is a significant predictor. The null hypothesis is rejected, which means cloud computing significantly affects OTM postgraduate students' career decisions. Their career prospects are greatly influenced by

learning cloud computing skills. Public universities should include training in cloud computing as part of their course to increase the employability of students.

Discussion of Findings

The results of the hypothesis test show that cloud computing has a big impact on OTM postgraduate students' career pathways at public universities in South-West Nigeria. With an R-squared value of 0.396 and a correlation coefficient (R) of 0.629, cloud computing explains around 39.6% of the diversity in career pathways. The model's statistical significance is confirmed by the ANOVA findings ($F = 28.913$, $p = 0.000$), which imply that cloud computing is a major factor in determining career advancement. The null hypothesis is rejected since the regression coefficient ($B = 0.636$, $p = 0.00$) further demonstrates the significant impact of cloud computing on students' career outcomes.

These findings are consistent with other studies on the contribution of technology proficiency and digital skills to job advancement. According to Emily and Ile (2023), OTM graduates must possess cloud computing skills, especially for efficient electronic records administration. Similar to this, Oghenerukevwe and Emmanuel (2023) emphasised the importance of using cloud technology applications for office administration efficiency, supporting the claim that proficiency with cloud computing improves work performance and employability. Additionally, Adenekan and Jimoh (2021) discovered that digital competency has a major influence on secretaries' work performance at public tertiary institutions, confirming the significance of cloud-based knowledge.On the other hand, some research indicates that professionals and students may find it difficult to acquire cloud computing abilities. Despite the benefits of cloud computing for electronic records administration, Bello (2021) and Clemence et al. (2023) noted that many institutions continue to encounter adoption difficulties, such as a lack of training and reluctance to embrace new technology. Similarly, Fasae (2022) found that although OTM students understand the importance of digital skills, their preparedness for cloud-based job positions is hampered by gaps in curricular integration.

These findings' ramifications highlight how important it is for public institutions to include instruction in cloud computing in their OTM programs. Given how quickly workplace spaces are becoming digital, educational institutions need to provide students practical experience with

database administration, analytics, and cloud security. To make sure that graduates are competitive in the changing labour market, policymakers and educators should create targeted initiatives to improve cloud computing skills. In order to close any skill gaps and optimise the advantages of cloud computing in workplace operations, companies that hire OTM graduates should also make investments in ongoing professional development programmes.

Conclusion

The study concluded that OTM postgraduate students' career choices at public universities in South-West Nigeria are greatly impacted by cloud computing. The null hypothesis was rejected as a consequence of the data, which demonstrated that cloud computing is a significant factor in determining career success. These findings are consistent with other studies that highlight the value of digital competency in improving work performance and employability. To fully realised the potential of cloud computing, however, issues like institutional and curriculum challenges must be resolved, even though it offers substantial career benefits. In order to provide students with the necessary digital skills to be competitive in the changing labour market, institutions should incorporate cloud computing into their courses.

Recommendations

Based on the findings and conclusion of this study, the researchers recommended that management of those selected public universities should:

1. establish career counseling unit that would help OTM postgraduate students to assess different professional opportunities and appropriately choosing the best,
2. organise frequent career fairs to enable OTM postgraduate students' network for potential employers to discover their talents and skills and as well getting opportunities for professional growth,
3. collaborate with experts in the industry (Microsoft, Google, and Amazon) to provide tailored and firsthand training programmes that would address new advances in the use of office automation,
4. organise hands-on workshops, boot camps, and seminars to help OTM postgraduate students become more proficient in cloud computing technology; and
5. Government should commit more funds to equip ICT laboratories with cloud computing infrastructure to help facilitate hands-on learning experiences.

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